UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,635	12/02/2003	Jeffrey David Aman	YOR920030562US1	4545

35526 7590 10/31/2007	**EXAMINER**
DUKE W. YEE	AVELLINO, JOSEPH E
YEE & ASSOCIATES, P.C.	

ART UNIT	PAPER NUMBER
2143	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/725,635	AMAN ET AL.
	Examiner	Art Unit	
	Joseph E. Avellino	2143	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2007*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-16 and 18-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-16 and 18-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some *   c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-6, 8-16, 18-22 are presented for examination; claims 1, 11 and 20 independent. The Office acknowledges the addition of claims 21-22.

Allowable Subject Matter

2.   The examiner believes that focusing in on the particular features described in the specification regarding using the "application topology" information, and how this information is accessed and obtained using agent programs, specifically as described on page 17, lines 10-22, in order to generate the weighting for the application instance, would put this case in condition for allowance. If Applicant would like further clarification, Applicant is invited to contact the Examiner, however final decision regarding allowability cannot be made until a proper response has been received and an updated search has been conducted.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 8-16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson (US 6,697,849) in view of Romero et al. (US 2002/0069279) (hereinafter Romero).

3.   Referring to claim 1, Carlson discloses a method of distributing traffic to application instances (i.e. applications 202-208 running on application server 200) on one or more computing devices (i.e. servers 308A-C), comprising:

obtaining application instance specific operational information (i.e. server load criteria and application component performance criteria) identifying operational characteristics (i.e. elements shown in Figures 8 and 9) of an application instance on a computing device on the one or more computing devices (e.g. abstract; col. 12, lines 40-67);

generating a load balancing weight to be associated with an application instance based on the application instance specific operational information (i.e. random number is generated in a weighted manner according to the "best" server at that particular time) (col. 16, lines 13-47); and

distributing traffic based on the generated load balancing weight (i.e. "gracefully" distribute requests among the application servers) (col. 16, lines 35-47).

Carlson does not explicitly disclose that the instance specific operational information includes an importance of the transactions processed by the application instance. In analogous art, Romero discloses another method for distributing traffic to application instances which discloses the application instances (i.e. servers) are reserved for priority specific transactions (i.e. the premium servers are reserved for high priority transactions, therefore the application specific service level includes information regarding the type of transaction currently being processed) (¶ 30-31, 33). It would have been obvious to one of ordinary skill in the art to combine the teaching of Romero

with Carlson in order to utilize the policies of Romero with the performance criteria used

by Carlson, thereby increasing the ability to customize load balancing weights according

to the user's liking.

4.   Referring to claim 2, Carlson discloses the invention substantively as described

in claim 1. Carlson does not explicitly state receiving the operational information from

an agent program resident on the computing device, however does discuss the use of a

load balancing service including a load monitor and a load distributor (Figure 4). In

analogous art, Romero discloses another load balancing service amongst a plurality of

application instances (i.e. servers) which discloses using an agent program (i.e.

software agent) which is capable of returning operational status information to a load

balancer (¶ 37). It would have been obvious to one of ordinary skill in the art to

combine the teaching of Romero with Carlson in order to utilize the policies of Romero

with the performance criteria used by Carlson, thereby increasing the ability to

customize load balancing weights according to the user's liking.

5.   Referring to claim 3, Carlson-Romero disclose the invention substantively as

described in claim 1. Carlson-Romero do not explicitly disclose the application instance

is instructed to communicate with the software agent, however one of ordinary skill in

the art would find it obvious to do so in order to facilitate communications between the

software agent and the server application.

6.   Referring to claim 4, Carlson discloses generating a weight comprises comparing the application instance specific information to one or more other application instance specific information and generating a load balancing weight based on the relationship between the application instance specific information and the other application instance specific information (i.e. rank the application servers in terms of their response time and generate the weights based on the fastest response times) (col. 16, lines 35-40).

7.   Referring to claim 5, wherein the relationship is the relative difference between the two application instances (i.e. this can be construed as ranking as described above) (col. 16, lines 35-40).

8.   Claim 6 and 7 are rejected for similar reasons as stated above.

9.   Referring to claim 8, Carlson discloses performing the weighting periodically (col. 16, lines 5-12),

10.   Referring to claim 9, Carlson-Romero discloses the invention substantively as described in claim 1. Carlson does not explicitly state that the weighting is done separately from the computing devices or a load balancing device, however it has been held obvious to make parts separable. See Nerwin v. Erlichman 168 USPQ 177 (1969). By this rationale, one of ordinary skill in the art would have found it obvious to separate the weight management system from a load balancing device or the

15.   Applicant's amendment necessitated the new ground(s) of rejection presented in
this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37
CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within
TWO MONTHS of the mailing date of this final action and the advisory action is not
mailed until after the end of the THREE-MONTH shortened statutory period, then the
shortened statutory period will expire on the date the advisory action is mailed, and any
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
the advisory action. In no event, however, will the statutory period for reply expire later
than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Joseph E. Avellino whose telephone number is (571)
272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number
for the organization where this application or proceeding is assigned is 571-273-8300.

computing devices in order to reduce processing overhead, thereby resulting in a more efficient system.

11.   Referring to claim 10, Carlson discloses assigning a base weight to the servers, and increasing/decreasing the weights based on the relative response time (i.e. in a random distribution of N servers, each server would receive equal weighting 1/N, however by ranking the servers in terms of the response time, those servers with a relatively lower response time would increase their weighting) (col. 16, lines 35-40).

12.   Claims 11-16, and 18-22 are rejected for similar reasons as stated above.
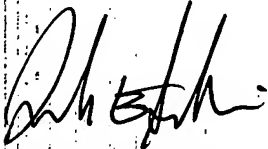
Response to Arguments

13.   Applicant's arguments filed October 12, 2007 have been fully considered but they are moot in view of the new grounds of rejection presented above.

Conclusion

14.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph E. Avellino, Examiner
October 17, 2007